

## **REMARKS**

### **I. General Remarks**

Please consider the application in view of the following remarks. Applicants thank the Examiner for her careful consideration of this application.

### **II. Disposition of the Claims**

Claims 7-19 are pending in this application. Claims 7-19 are rejected. Claims 7, 11, 14, and 17 have been amended herein. These amendments are supported by the specification as filed. Applicants respectfully request that the above amendments be entered and further request reconsideration in light of the amendments and remarks contained herein. It should not be assumed that the amendments made herein were made for reasons related to patentability.

### **III. Rejection of Claims Under 35 U.S.C. §103**

#### **A. Claims 7-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nguyen et al. (US 6,209,643) in view of Free et al. (US 3,960,736)**

Claims 7-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,209,643 issued to Nguyen et al. (hereinafter “*Nguyen*”) in view of U.S. Patent No. 3,967,036 issued to Free et al. (hereinafter “*Free*”). With respect to these rejections the Final Office Action states:

Applicants assert that the combination of Nguyen and Free does not teach or suggest each element of claims 7 and 14. Nguyen fails to disclose each and every limitation of independent claims 7 and 14. Nguyen teaches particulates that are coated with a “liquid or solution of a tackifying compound, which coats at least a portion of the particulate upon admixture therewith.” (Nguyen at col 3. ll. 41-43). However, the “treatment chemical” (e.g., hydrolyzable ester) actually becomes adhered to the tackifying compound. (See Nguyen at col. 4, ll. 57-60). This does not teach a particulate that is itself coated with a coating solution comprising an acid-releasing degradable material and a solvent or plasticizer, as recited in claims 7 and 14. Nor does Free teach this element. Rather, Free merely teaches that an organic ester which hydrolyzes over a certain time period to release an acid may be used as a breaker of a viscous aqueous solution for the use as a fracturing fluid, as a drilling fluid. (See Free at col. 1, ll. 36-46).

The Examiner respectfully disagrees with this argument. In contrast to Applicants statement, Nguyen teaches at col. 4, 57-60, “The presence of the *tackifying compound on the particulate* or substrate material causes the treatment chemical containing or coated particles to adhere to and remain dispersed within the

coated particulate both during mixing, introduction into the formation and upon placement therein. The transported treatment chemicals are not subject to the gravity segregation or premature settling from the particulate material with which it is introduced. Thus, the treatment chemicals can be uniformly dispersed in a proppant pack or gravel pack without undesired segregation or settling to enable uniform release of the treatment chemical within the formation". Thus, Nguyen teaches a particulate that is itself coated with an acid-releasing degradable material.

As to claimed solution of an acid-releasing degradable material, Nguyen teaches that a treatment chemical which may be in particulate form or coated upon or in a substrate (See column 3, lines 43-44) such as hydrolyzable esters (See column 4, lines 40-41) that are capable of producing a pH change in the fluid (See column 4, lines 40-42). The tackifying compound is admixed in a solvent such as alcohol (See column 5, lines 55-56). Free et al teach that an organic ester, which hydrolyzes over a certain period of time to release an acid, such as low molecular weight (C<sub>1</sub> -C<sub>12</sub>) esters of organic carboxylic acids, may be used as a breaker of a viscous aqueous solution for the use as a fracturing fluid, as a drilling fluid (See column 1, lines 36-46). Note that organic esters are generally *soluble* in a conventional *alcohol solvent* such as methanol and isopropanol. Therefore, a solid particulate organic ester of Nguyen in view of Free et al would *at least partially dissolve* in the conventional *alcohol solvent* forming at least a colloidal *solution* of the organic ester when mixed with a solution of a tackifying compound in an alcohol solvent and particulate material.

(Office Action, at 3-5) Applicants respectfully disagree.

To form a basis for a § 103(a) rejection, a combination of prior art references must teach or suggest each element in the claim in such a way that enables a person of ordinary skill in the art to make or use the claimed invention. MPEP §§ 2141.01(II) & 2142 (2004). Applicants respectfully assert that the combination of *Nguyen* and *Free* does not teach or suggest each element of claims 7 and 14, as amended.

*Nguyen* fails to disclose each and every limitation of independent claims 7 and 14, as amended. *Nguyen* teaches particulates that are coated with a "liquid or solution of a tackifying compound, which coats at least a portion of the particulate upon admixture therewith." (*Nguyen* at col. 3, ll. 41-43). However, this tackifying compound is not the acid-releasing degradable material Applicants are claiming, and the "treatment chemical" (e.g., a hydrolyzable

ester) actually becomes adhered to the tackifying compound. (*See Nguyen* at col. 4, ll. 57-60). This does not teach a particulate that is itself coated with a coating solution comprising an acid-releasing degradable material, with the proviso that the acid-releasing degradable material is not polyester, and a solvent or plasticizer, as recited in claims 7 and 14. Nor does *Free* teach this element. Rather, *Free* merely teaches that an organic ester which hydrolyzes over a certain time period to release an acid may be used as a breaker of a viscous aqueous solution for the use as a fracturing fluid, as a drilling fluid. (*See Free* at col. 1, ll. 36-46). Therefore, one of ordinary skill in the art would not understand from these references, either alone or in combination, to make or use particulates coated with a coating solution comprising an acid-releasing degradable material, with the proviso that the acid-releasing degradable material is not polyester, and a solvent or plasticizer, as recited in claims 7 and 14, as amended.

Thus because the combination of *Nguyen* and *Free* does not teach all elements of claims 7 and 14, as amended, the combination cannot obviate claims 7 and 14. Since “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers,” and since claims 8-13 and 15-19 depend, directly or indirectly, from claim 7 or 14, these dependent claims each include the limitations of claims 7 and 14 that neither *Nguyen* nor *Free* teaches or suggests. *See* 35 U.S.C. § 112 ¶ 4 (2004). Therefore, Applicants respectfully assert that claims 7-19 are allowable over the combination of *Nguyen* and *Free*, and respectfully request the withdrawal of the rejections thereto.

**B. Claims 7-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Nguyen* et al. (US 6,209,643) in view of *Free* et al. (US 3,960,736), further in view of *Lee* et al (US 6,817,414)**

Claims 7-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nguyen* in view of *Free*, further in view of U.S. Patent No. 6,817,414 issued to *Lee* et al. (hereinafter “*Lee*”). With respect to these rejections the Office Action states:

Applicants assert that the combination of *Nguyen* and *Free* fails to disclose each and every limitation of independent claims 7 and 14 for the same reasons as discussed above in Section (A). Nor does *Lee* teach what the combination of *Nguyen* and *Free* lacks.

The Examiner respectfully disagrees with this argument for the same reasons as discussed above in Section (A).

(Office Action, at 5) Applicants respectfully disagree.

To form a basis for a § 103(a) rejection, a combination of prior art references must teach or suggest each element in the claim in such a way that enables a person of ordinary skill in the art to make or use the claimed invention. MPEP §§ 2141.01(II) & 2142 (2004). Applicants respectfully assert that the combination of *Nguyen*, *Free*, and *Lee* does not teach or suggest each element of claims 7 and 14, as amended.

As discussed above in Section V (A), the combination of *Nguyen* and *Free* fails to disclose each and every limitation of independent claims 7 and 14, as amended. Nor does *Lee* teach what the combination of *Nguyen* and *Free* lacks. Rather, *Lee* merely teaches the coating of a proppant with a polymerized alpha-hydroxycarboxylic acid. (See *Lee* at col. 3, ll. 6-8). This does not teach a particulate that is itself coated with a coating solution comprising an acid-releasing degradable material, with the proviso that the acid-releasing degradable material is not a polyester, and a solvent or plasticizer, as recited in claims 7 and 14, as amended. Therefore, one of ordinary skill in the art would not understand from these references, either alone or in combination, to make or use particulates coated with a coating solution comprising an acid-releasing degradable material and a solvent or plasticizer, as recited in claims 7 and 14.

Because the combination of *Nguyen*, *Free*, and *Lee* does not teach all elements of claims 7 and 14, as amended, the combination cannot obviate claims 7 and 14. Since “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers,” and since claims 8-13 and 15-19 depend, directly or indirectly, from claim 7 or 14, these dependent claims each include the limitations of claims 7 and 14 that neither *Nguyen*, *Free*, nor *Lee* teaches or suggests. See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, Applicants respectfully assert that claims 7-19 are allowable over the combination of *Nguyen*, *Free*, and *Lee*, and respectfully request the withdrawal of the rejections thereto.

Furthermore, Applicants note that the Examiner failed to address Applicants arguments that the Examiner failed to establish a *prima facie* case of obviousness with respect to the combination of *Nguyen*, *Free*, and *Lee*. A *prima facie* case of obviousness based on a combination of references requires a suggestion or motivation in the prior art references to make the specific combination of elements claimed by Applicants. MPEP § 2143.01. “The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” MPEP § 2143.01. In the present case, the Examiner has not sufficiently established that it would have been obvious to one of ordinary skill in

the art to combine the *Lee* reference with the *Nguyen* reference. The method in *Lee* does not lend itself for on-the-fly operations. (*See Lee* at col. 3, line 56 - col. 4, line 11). In order for an acid-releasing degradable material to be suitable for on-the-fly coating onto a particulate, it must be in a substantially liquid, flowable form. Thus it would be improper to combine this reference with *Nguyen* which does lend itself for on-the-fly operations. (*See Nguyen* at col. 5, ll. 10-13). For at least these reasons any rejections based on *Lee* in combination with *Nguyen* and *Free* are improper.

Accordingly, Applicants request that any rejections of Applicants' claims over *Lee* in combination with *Nguyen* and *Free* be withdrawn.

#### **IV. No Waiver**

All of Applicants' arguments and amendments are without prejudice or disclaimer. Additionally, Applicants have merely discussed example distinctions from the cited references. Other distinctions may exist, and Applicants reserve the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner's additional statements. The amendments and example distinctions discussed by Applicants are sufficient to overcome the rejections of the claims.

**SUMMARY**

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

The Commissioner is hereby authorized to debit Baker Botts L.L.P.'s Deposit Account No. 02-0383, Order Number 063718.1357, in the amount of \$810.00 for the RCE fee under 37 C.F.R. § 1.17(e). Should the Commissioner deem that any additional fees are due, including any fees for extensions of time, Applicants respectfully request that the Commissioner accept this as a petition therefor, and direct that any additional fees be charged to Baker Botts L.L.P.'s Deposit Account No. 02-0383, Order Number 063718.1357.

Respectfully submitted,

By: 

Carey C. Jordan  
Reg. No. 47,646  
BAKER BOTTs, L.L.P.  
910 Louisiana Street  
Houston, Texas 77002-4995  
Telephone: 713.229.1233  
Facsimile: 713.229.7833  
Email: [Carey.Jordan@bakerbotts.com](mailto:Carey.Jordan@bakerbotts.com)

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